

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1       Claim 1 (currently amended):           An inspection method of a terminal metal fitting having  
2       a wire connecting portion having a wall carrying an a sheathed electric wire and a crimping piece  
3       with a mirror reflection surface bent toward the wall so as to fasten the electric wire between the  
4       crimping piece and the wall, comprising the steps of:

5              illuminating the wire connecting portion fastened to the electric wire from a first specific  
6       direction;

7              taking an image of the wire connecting portion from a second specific direction;

8              binary-processing the image of the wire connecting portion being illuminated;

9              calculating whether an area is less than or not less than a threshold value in image  
10      information obtained by the binary processing; and

11              judging good or bad of a fastening condition of the electric wire by the crimping piece on a  
12      basis of the area.

1       Claim 2 (currently amended):           An inspection system of a terminal metal fitting having  
2       a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward  
3       the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

4           a light source to illuminate the wire connecting portion;  
5           an image-taking means to take an image of the wire connecting portion;  
6           a dark box, with a dark inner surface, to cover at least an object side of the image-taking  
7       means, the light source, and the terminal metal fitting for preventing outer light from shining on the  
8       wire connecting portion; and

9           a judging means to binary-process an image of the wire connecting portion being illuminated  
10      by the light source and judge whether good or bad as to a fastening condition of the electric wire by  
11      the crimping piece on a basis of an area being less than or not less than a threshold value in image  
12      information obtained by the binary processing,

13           wherein the image-taking means and the light source are arranged so that the light thrown  
14      from the light source and reflected by the crimping piece with a mirror reflection surface does not  
15      enter the image-taking means, and a sheathing portion of the electric wire is a light color.

1           Claim 3 (original):     The inspection system of the terminal metal fitting as set forth in claim  
2       2, wherein

3           the image-taking means faces the wall of the wire connecting portion to which the electric  
4       wire is fastened,

5           and the light source is arranged at a position of making an angle  $\theta$  between a line connecting  
6       the light source with the crimping piece and a direction of the electric wire fastened to the wire  
7       connecting portion so that the light thrown from the light source and reflected by the crimping piece  
8       does not enter the image-taking means.

**Claim 4 (original):** The inspection system of the terminal metal fitting as set forth in claim 3, wherein

the light source is arranged at a position of making the angle  $\theta$  of not more than 45 degrees.

Claim 5 (currently amended): An inspection system of a terminal metal fitting having a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

a light source to illuminate the wire connecting portion;

an image-taking means to take an image of the wire connecting portion;

a judging means to binary-process an image of the wire connecting portion illuminated by the light source and judge good or bad of a fastening condition of the electric wire by the crimping piece on a basis of an area being less than or not less than a threshold value in image information obtained by the binary processing,

wherein the image-taking means and the light source are arranged so that the light thrown from the light source and reflected by the crimping piece with a mirror reflection surface enters the image-taking means.

**Claim 6 (original):** The inspection system of the terminal metal fitting as set forth in claim 5, wherein

the image-taking means faces the wall of the wire connecting portion to which the electric wire is fastened,

5           and the light source faces the wall of the wire connecting portion, to which the electric wire  
6       is fastened, near the image-taking means so that the light thrown from the light source and reflected  
7       by the crimping piece enters the image-taking means.

1           Claim 7 (previously presented):     The inspection system of the terminal metal fitting as  
2       set forth in any one of claims 2-6, wherein the judging means judges whether good or bad as to a  
3       fastening condition of the electric wire on a basis of an area being less than or not less than a  
4       threshold value in an inspection area in the image of the wire connecting portion taken by the image-  
5       taking means, the inspection area being provided for each crimping piece and including at least  
6       partial image of the crimping piece.

1           Claim 8 (original):     The inspection system of the terminal metal fitting as set forth in claim  
2       7, wherein  
3       the inspection area is positioned over a longitudinal axis of the electric wire fastened to the  
4       wire connecting portion.